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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,574	12/01/2000	Tsuneo Sakamoto	1921-0129P	1978

2292 7590 04/07/2003

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EXAMINER

CHERRY, STEPHEN J

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/726,574

Applicant(s)

SAKAMOTO ET AL.

Examiner

Stephen J. Cherry

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 4,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4,6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Summers et al.

Claim 4 describes, as anticipated by Summers:

4. A method of monitoring an operation of a thermal device ('456, col. 7, line 18), comprising:

detecting data on operating states of said thermal device ('456, col. 7, line 20);

storing said detected data at specified time intervals ('456, col. 8, lines 42-45) along with time of detection as first operating state data ('456, col. 8, lines 27-31), wherein a first number of operating state data are stored in

sequence so that when a new operating state data is added, an oldest operating state data is dropped ('456, col. 11, lines 46-49);  
storing detected data as failure data when a failure occurs in said thermal device along with the time of failure ('456, col. 12, lines 17-22);  
storing second operating state data for a second number of time intervals less than said first number of time intervals after the failure ('456, col. 12, lines 17-22);  
storing third operating state data at a starting point at each control step ('456, col. 13, lines 34-40); and  
outputting said stored first, second and third operating state data and failure data ('456, col. 7, line 54 to col. 8, line 4).

Claim 6 describes, as anticipated by Summers:

6. An apparatus for monitoring an operation of a thermal device, comprising:  
detectors for detecting operating states of said thermal device ('456, 10);  
a processor for receiving outputs from said detectors ('456, 16);  
a storage device connected to said processor for receiving data based on said outputs from said detectors along with a time of detecting as operating state data at specified time intervals, a first number of time intervals being stored so that when a new operating state data is added,

an oldest operating state data is dropped ('456, 17, 18, 19 and col. 11, lines 46-49);

said storage device also storing data when a failure occurs along with the time of failure, wherein operating state data continues to be stored for a second

number of time intervals smaller than said first number of time intervals after the failure ('456, col. 12, lines 17-22);

wherein said storage device also stores operating state data at a starting point of each control step ('456, col. 13, lines 34-40); and

an output device used for outputting data from said storage device ('456, 21-24 and 26).

Claim 7 describes, as anticipated by Summers:

7. The apparatus according to claim 6, further comprising a monitoring device for receiving data from said output device ('456, 21-24).

### ***Response to Arguments***

Applicant's arguments filed 2-24-03 have been fully considered but they are not persuasive.

Applicant states that Summers does not disclose storing data for a second number of time intervals less than said first number of time intervals, however summers

discloses this (col. 12, lines 10-30) in log 103 and log 104, which are smaller than logs 101 and 102.

Applicant further states that there is no statement that data is stored at a starting point in each control step. In interpreting the claim, the examiner is using applicant's definition of "control step" as it appears on page 7, line 24 to page 8, line 3 of the specification. This definition includes, "change of combustion quantity". The examiner is interpreting this phrase as including a change to a value related to combustion in the system. In column 13, line 37, Summers discloses triggering logs initiated by measured points in the boiler, disclosing what is claimed in the present application.

The examiner suggests that applicant review the translation of the foreign priority document to ensure the definition of "control step", as it appears in the present application, is that which was intended by the inventors.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (703) 305-0425. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0719.

SJC  
April 3, 2003

  
John Barlow  
Supervisory Patent Examiner  
Technology Center 2800